

GIRL SCOUTS OF THE USA WATER CONSERVATION PATCH PROGRAM

Sponsored by the San Diego County Water Authority



The **Water Conservation Patch** Program is designed to teach Girl Scouts about the importance of their water supply and how to conserve it. With a better understanding of San Diego's water supply we hope that young people will be motivated to take care of their water resources and make conservation a way of life. This program is for San Diego County residents only.

THE REQUIREMENTS ARE DIVIDED INTO BROWNIE, JUNIOR GIRL SCOUT AND CADETTE/SENIOR GIRL SCOUT LEVELS:

BROWNIES AND JUNIOR GIRL SCOUTS complete all of the first four requirements.

1. Describe what it means to conserve something.
2. Read a brochure on how to conserve water with your leader, or on your own, and discuss with your group.
3. Be able to name at least 5 ways to conserve water in and around your home.
4. Learn some basic facts about where San Diego's water comes from and how it gets here.

BROWNIES choose one from below. JUNIOR GIRL SCOUTS choose three from below.

5. Draw a poster of yourself doing something to conserve water.
6. Write your own pledge to conserve water and say it before your group.
7. Draw a picture of the water cycle.
8. Be able to identify on a map the location of the Sierra Nevada mountain range and the Colorado River. Use a map of California that includes physical features such as mountain ranges.
9. Look around the house and find an area where you think you might be able to do a better job of saving water. Take action to improve the situation.

CADETS/SENIOR GIRL SCOUTS Complete the following five conditions plus two from the next section

1. Learn about San Diego's water supply system. How does your water get to San Diego?
2. Identify your local water supplier. What agency serves water to your neighborhood?
3. Read a brochure or pamphlet on how to conserve water.
4. Name at least 5 ways to conserve water in and around the house.
5. Write a short description of the following terms: Conservation, Reclamation, Desalination. (See Next Page)

CADETS\SENIOR GIRL SCOUTS choose two of the following.

1. Discuss with your family what you have learned about water as you have worked on this patch. Ask them to keep an eye on their water use habits for a week and then decide together if there are any permanent steps they can take to help save water. Suggestions – if your toilets are not water conservation models (1.6 gallons per flush) find out if your local water agency offers assistance to help you purchase more efficient models. Measure the amount of water that collects in a bucket when you leave the showerhead running for one minute. Investigate replacing it with a low flow model (possibly available for free from your local water agency) if you collect more than 4 gallons in one minute. Set automatic timers on sprinkler systems to water only during evening or early morning. Make sure the hose always has an automatic shut-off nozzle when you wash the car. Check for rebates on front-loading washing machines when it is time to purchase a new one.
2. Learn about three different types of plants that need very little water to grow. Know their names and where they come from (where they grow naturally).
3. Design an experiment that will demonstrate some part of the water cycle. Suggestions - Make a rain gauge to measure rainfall or invent some way to demonstrate one of the concepts that you have learned while working on this program.
4. Investigate how water is purified to make it safe to drink. Group leaders may wish to contact their local water agencies to see if there is a water treatment plant nearby and if tours are available.
5. Learn about some of the plans your local water district has to help insure we have enough water for the future.

RESOURCES

The following resources may help you complete the requirements for this patch. It is helpful if the group works on this patch together and leaders request information for the group rather than hearing from each individual.

BOOKS - Check your local library

Deserts *Posell, Elsa* (Children's Press, 1991) Describes the climatic conditions, flora, and fauna of the desert, and explains that some people find it habitable and others profitable for its mineral riches.

The Magic School Bus At The Waterworks. *Cole, Joanna.* (New York, Scholastic Inc. 1986). Good resource for water treatment information.

Sunset Garden Book (California, Sunset Publishing Corporation, 1992) Good resource for information on water efficient plants.

Water For All *Morgan, Sally* (Franklin Watts, 2000) Examines the different water sources in the world, how water is treated, and the problem of supplying clean water to the world's increasing population.

WATER What it is, What it does *Seixas, Judith S.* (New York, Greenwillow Books. 1987). An introduction to simple water concepts.

The Young Scientist Investigates Water *Jennings, Terry* (Chicago, Children's Press. 1982) Information on the properties of water. Includes many good experiments.

INTERNET LINKS

For information about the San Diego County's water supply, local water agencies and conservation visit the San Diego County Water Authority's site. <http://www.sdcwa.org/>

For information about the Water Cycle visit the USGS "water science for schools" site. <http://www.ga.usgs.gov/edu/index.html>

There are many sources of information on drought tolerant plants and low water use gardens available on the internet. Visit the Water Conservation Garden at Cuyamaca College <http://www.thegarden.org/> for more information.

SAN DIEGO COUNTY WATER AUTHORITY MEMBER AGENCY PHONE NUMBERS

| | | | |
|----------------------------------------------|--------------|--------------------------------------------------|--------------|
| CARLSBAD MUNICIPAL WATER DISTRICT | 760-438-2722 | RAINBOW MUN.WATER DISTRICT | 760-728-1178 |
| CITY OF DEL MAR - Water Utilities Department | 858-755-3294 | RAMONA MUNICIPAL WATER DISTRICT | 760-789-1330 |
| CITY OF ESCONDIDO-Water Utilities Dept. | 760-839-4657 | RINCON DEL DIABLO MUNICIPAL WATER DISTRICT | 760-745-5522 |
| FALLBROOK PUBLIC UTILITY DISTRICT | 760-728-1125 | CITY OF SAN DIEGO - Water Utilities Department | 619-533-7555 |
| HELIX WATER DISTRICT | 619-466-0585 | SAN DIEGUITO WATER DISTRICT | 760-633-2676 |
| LAKESIDE WATER DISTRICT | 619-443-3805 | SANTA FE IRRIGATION DISTRICT | 858-756-2424 |
| CITY OF OCEANSIDE | 760-435-5800 | SWEETWATER AUTHORITY (NATIONAL CITY, SO. BAY ID) | 619-420-1413 |
| OLIVENHAIN MUNICIPAL WATER DISTRICT | 760-753-6466 | VALLECITOS WATER DISTRICT | 760-744-0460 |
| OTAY WATER DISTRICT | 619-670-2222 | VALLEY CENTER MUNICIPAL WATER DISTRICT | 760-749-1600 |
| PADRE DAM MUNICIPAL WATER DISTRICT | 619-448-3111 | VISTA IRRIGATION DISTRICT | 760-597-3100 |
| CAMP PENDLETON MARINE CORPS BASE | 760-725-1061 | YUIMA MUNICIPAL WATER DISTRICT | 760-742-3704 |
| CITY OF POWAY | 858-668-4401 | | |

BROCHURES

Send in the form below, or call and leave a message including the information below, to request a packet of brochures to assist you with this project. As members complete the requirements for the patch fill out the record sheet on the following page. When it is complete, return it to the address below. Please allow two weeks between the time you send in your request for patches and the date you wish to distribute them. Certificates will be printed so take care to write names legibly.

Send all requests for information or patches to:

Education Department – Patch Program
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
(858) 522-6720

Cut off and return the section below to request information

Please send a brochure packet that will assist my group in completing the water conservation patch program.

Name: _____ Number of members in group: _____

Address: _____

_____ Phone Number (in case of question): _____

Organization: _____ Level of Group Members: _____

GIRL SCOUT PATCH PROGRAM LOG SHEET

Use this log to keep track of the completion of requirements and to provide the Water Authority with a record of recipients. There are five requirements for Brownies, seven for Junior Girl Scouts and seven for Cadets/Senior Girl Scouts. When complete send this form to the address below. Please allow two weeks between the time you send in the request for patches and the date you wish to distribute them. Please write legibly as certificates with names will also be included.

| NAME - Please Print!!!! | Patch Requirements (√) | | | | | | | Date Completed |
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PLEASE INCLUDE THE FOLLOWING INFORMATION WHEN RETURNING THIS SHEET

Group Leader's Name: _____

Mailing Address: _____

Phone Number In Case of Questions: _____

Mail to:
 Education Department – patch program
 San Diego County Water Authority
 4677 Overland Avenue
 San Diego, CA 92123